LOCAL COMMENT LETTERS

COMMENT 9

CITY OF COSTA MESA

CALIFORNIA 92628-1200 P.O. BOX 1200

PUBLIC SERVICES DEPARTMENT

May 26, 2005

Mr. Ricky Ramos
City of Huntington Beach
Planning Department
2000 Main Street
Huntington Beach, CA 92648

SUBJECT: DRAFT ENVIRONMENTAL IMPACT REPORT NO. 00-02 FOR THE SEAWATER DESALINATION PROJECT IN HUNTINGTON BEACH

Dear Mr. Ramos:

Thank you for meeting with City of Costa Mesa staff on May 24, 2005, to discuss the subject Draft Environmental Impact Report (EIR). Based on our discussions and a review of the Draft EIR, the City of Costa Mesa has developed the attached comments and conditions. a

If you have any questions, please contact Peter Naghavi, Transportation Services Manager, at 714-754-5182.

Sincerely,

William J. Morris
Director of Public Services

Attachment

c Peter Naghavi, Transportation Services Manager
Ernesto Munoz, City Engineer
Mike Robinson, Assistant Development Services Director
Kimberly Brandt, Principal Planner
Raja Sethuraman, Associate Engineer
Doug Lofstrom, Orange County Fairgrounds

COMMENTS ON THE SEAWATER DESALINATION PROJECT
DRAFT RECIRCULATED ENVIRONMENTAL IMPACT REPORT

Page 3-2: The DEIR states "Although precise pipeline alignments may be modified during final engineering analysis, the conceptual pipeline alignments are shown in Exhibit 3-3....." The City of Costa Mesa considers the pipeline to be integral part of the project. As such, the final alignments should not significantly deviate from proposed project alignments. The proposed modifications suggested to pipeline alignment by the Costa Mesa's Engineering Division should be in the current DEIR. **b**

Exhibit 3-3: The plan should clearly identify the locations where the pipeline is within City right-of-way and where the pipeline alignments are not within the City's right-of-way. The project description depicts the alignment traversing through the Orange County Fairgrounds, Fairview Developmental Center, and the Costa Mesa Country Club. **c**

Page 3-38: Primary Alignment:
The DEIR discusses alignment along Adams Avenue and then to Placentia Avenue to Costa Mesa Country Club. Adams Avenue is a Major Arterial and carries significant amount of traffic throughout the day. In addition, there are residential areas adjacent to Adams Avenue as well as Placentia Avenue in the proposed alignment area. Therefore, the construction impacts resulting from the proposed project are significant and should be addressed as part of the DEIR. Trenching in the roadway may result in closure of two lanes of traffic during the day, which would not be allowed by the City of Costa Mesa. The impacts of construction at night such as noise should be evaluated and addressed in the DEIR. **d**

Prior to reaching Costa Mesa Country Club, the pipeline crosses Fairview Park. Approvals from Costa Mesa City Council and Parks & Recreation Commission will be required prior to working within the Fairview Park, as well as within the Costa Mesa Country Club. Approval from operators of Costa Mesa Country Club should be obtained prior to construction within Costa Mesa Country Club. **e**

The DEIR states that "pipeline would then proceed along the eastern boundary of Fairview State Hospital." The area shown in Exhibit 3-3 has been sold by Fairview State Hospital to private developers for a housing project. City requires the project applicant to provide documentation of approval from Fairview Developmental Center of the proposed pipeline within their property. The impacts of moving the alignment to City's right-of-way along Harbor Boulevard will result in significant impacts that were not evaluated in the DEIR. **f**

The DEIR then states that the pipeline would be routed along Fair Drive on the northern side. Please refer to comments below on this alignment. The City prefers an alignment in the center median of Fair Drive. The impacts of this construction should be analyzed in detail. The existing and proposed utilities under Fair Drive should be considered. Trenching in the roadway may result in closure of two lanes of traffic during the day, which would not be allowed by the City of Costa Mesa. Fair Drive has only two lanes in each direction. The impacts of construction at night such as noise should be evaluated and addressed in the DEIR, as there are residential areas adjacent to Fair Drive in the proposed alignment area. **g**

The DEIR further states that the pipeline may be routed through the Orange County Fairgrounds. However, based on discussions with Orange County Fairgrounds staff, there have been no approvals for the project. City will require approval from Orange County Fairgrounds of the project prior to the finalization of the alignment plan. The impacts of moving the alignment to Fair Drive will result in significant impacts that were not evaluated in the DEIR. h

Proposed Modifications to Pipeline Alignment

- Primary Route , Reach 4

    1. In lieu of using Adams Avenue and Placentia Avenue, the horizontal alignment of the proposed pipeline should utilize the Santa Ana River right-of-way from Adams Avenue to the City of Costa Mesa property south of Swan Drive, and proceed east along the northerly edge of the park. This alignment will result in minimum disruption of the City roadways.

    2. The pipeline shall be designed with consideration of the future improvements within Fairview Park, at the end of Canary Drive. i

    3. The Parks and Recreation Commission and Costa Mesa City Council shall approve all work within Fairview Park.

    4. Any work impacting the Golf Course parking lot shall require that the parking lot be resurfaced and be coordinated with operators of Golf Course.

- Primary Route, Reach 5

    1. City concurs with the trenchless crossing at Harbor Boulevard. The replacement roadway section for Fair Drive shall be Cement Treated Base, and the trench shall be located in the center of the street.

    2. The City of Costa Mesa reserves the south side of Fair Drive for a future storm drain. The proposed pipeline alignment should occur within the Orange County Fairgrounds between Fairview Road and Newport Boulevard.

- For all Routes

    1. The City of Costa Mesa reserves the right to approve both the alignment and location (vertical and horizontal control) within the City of Costa Mesa boundaries to allow for the future construction of City storm drain facilities and utility systems.

    2. The work for this project shall be coordinated with future projects by the City of Costa Mesa. The projects include, but are not limited to the rehabilitation of Fair Drive from Harbor Boulevard to Fairview Road, Arlington Avenue between

Fairview Road and Newport Boulevard, and Harbor Boulevard between Wilson Street and Newport Boulevard.

3. The pipeline alignment shall be located only on arterial streets as shown on City's Master Plan of Arterial Highways.

i

Page 3-29: Alternative Alignment:

City is not able to comment on alternative alignment as detailed analysis is not provided on this option. If this becomes the preferred alignment, the City requests a recirculation of the DEIR. Since, Victoria Street has only two lanes in each direction, the City of Costa Mesa is opposed to any consideration of this alignment as the impacts of the construction are anticipated to be significant.

j

Page 5.9-24, TRAFFIC

There is no discussion of impacts to City of Costa Mesa arterials and neighborhoods, where a majority of impacts would occur due to the project. The discussion is very general and brief with no estimates for truck trips or details of construction methods or quantification of impacts. Truck trips, construction workers and equipment resulting from the pipeline construction would impact City of Costa Mesa arterials significantly and should be documented in the DEIR. A Traffic Management Plan within City of Costa Mesa should be submitted for approval by City's Transportation Services Manager.

k

Page 5.9-33, TRAFFIC

CON-31:
1st Bullet: "Limit construction to one side of the road..." creates significant impact to City streets. The arterials considered for placement of pipeline in City of Costa Mesa are Adams Avenue, Placentia Avenue, Harbor Boulevard and Fair Drive. These roadways are of significant importance to the City and cannot be subject to closure, especially during the day.
3rd Bullet: Identify locations in City of Costa Mesa where there may be closure of bicycle lanes or sidewalks.
4th Bullet: Submit a truck routing plan to City of Costa Mesa for approval for any construction within Costa Mesa.
5th Bullet: Approval of a detour plan should be obtained from City of Costa Mesa Transportation Services Manager for any partial or full closure of streets within the City limits.
6th Bullet: City requires submittal of Traffic Management Plan at 90 percent design phase.
7th Bullet: The project ***shall*** coordinate with all other construction activities in the City and not just "to the extent feasible."

CON-32: For all work in the City of Costa Mesa, the project applicant shall receive approval from Costa Mesa Public Services Department.

CON-33: Same comment as for CON-32.

l

CON-34: Any nighttime construction activities in City of Costa Mesa shall receive approval from Public Services Director.

CON-36: The applicant shall coordinate all construction traffic related activities with Costa Mesa's Public Services Department. The construction vehicle routing plan in the City of Costa Mesa shall be submitted for approval by the City of Costa Mesa Transportation Services Manager.

EXECUTIVE SUMMARY:
Executive Summary should be revised to reflect responses to above comments.

Response No. 9

City of Costa Mesa
Public Services Department
William J. Morris, Director of Public Services

9a. This text provides an introduction to the comment letter and does not require a response.

9b. The desalinated water pipeline alignments presented in the DREIR were developed as a result of extensive preliminary engineering and feasibility analysis. These pipeline alignments are technically and environmentally feasible and are not expected to deviate substantially during final design, unless such a change is made necessary by an agency with permit authority over the project.

9c. A revised conceptual pipeline alignment map (Exhibit 3-3 of the DREIR) has been provided within Section 3.0, *ERRATA*, of the Responses to Comments.

9d. Construction of a 48-inch diameter pipeline will require one to two lanes to be closed during construction. The extent of these lane closures could be minimized through the contract documents to prevent a significant stretch of the road from being reduced by two lanes (500-feet minimum). In addition, hours of construction may be limited to exclude rush hour periods. Finally, lanes may also be re-striped to balance the number of lanes in each direction, effectively resulting in the loss of one lane in each direction. All pipeline design and construction within the City of Costa Mesa will be reviewed and approved by the City of Costa Mesa.

No night time construction is anticipated at this time.

9e. Comment noted. No response is necessary.

9f. The project applicant would obtain approval from the Fairview Developmental Center prior to construction on their property. Any construction occurring along Harbor Boulevard would require approval from the City of Costa Mesa and would include such measures as the exclusion of construction during rush hour periods, preparation of a Traffic Management Plan (TMP), and roadway re-striping, among others, as determined through a TMP review by the City.

9g. The construction of the product water pipeline in the median of Fair Drive may allow the closure of only one lane of traffic. This would ease the flow restrictions. Once the pipeline is laid, the median would be replaced to existing conditions. All pipeline design and construction within the City of Costa Mesa would be subject to the review and approval by the City of Costa Mesa. Also refer to Response 9d, above.

9h. Comment noted. Refer to Responses 13c through 13m, below.

9i. This change has been incorporated into Section 3.0 of the Responses to Comments, *ERRATA.*

9j. As stated above, implementation of any pipeline segment within the City of Costa Mesa would require approval prior to construction. The construction process would be subject to such measures as the exclusion of construction during rush hour periods, preparation of a Traffic Management Plan, and roadway re-striping, among others. The project applicant would consult with the City of Costa Mesa during final design to ensure that adverse impacts are minimized to the maximum extent practicable.

9k. Extensive analysis of impacts to sensitive receptors is provided within the DREIR in Section 5.9, *CONSTRUCTION RELATED IMPACTS* in regards to air quality, noise, and traffic. Mitigation to minimize impacts to less than significant levels (including the preparation of a Traffic Management Plan) is provided within the section.

9l. The measures provided within the comment would all be required as part of the permit approval process through the City of Costa Mesa (such as a truck routing plan, automobile/bicycle detour plan, Traffic Management Plan, coordination with other construction activities, and coordination with/approval from the City Public Services Department). The project applicant would consult with the City of Costa Mesa during 90% plan stage to ensure that adverse impacts are minimized to the maximum extent practicable. This change has been incorporated into Section 3.0 of the Responses to Comments, *ERRATA.*

COMMENT 10

CITY OF HUNTINGTON BEACH

ENVIRONMENTAL BOARD

May 12, 2005

Mr. Ricky Ramos
Planning Department
City of Huntington Beach
P.O. Box 190
Huntington Beach, CA 92648

Subject: **Poseidon Seawater Desalination Project at Huntington Beach – Draft Recirculated Environmental Impact Report No. 00-02**

Dear Mr. Ramos:

The Environmental Board of the City of Huntington Beach is pleased to submit comments and recommendations regarding the subject Draft Recirculated Environmental Impact Report ("DREIR"). After reviewing the DREIR and discussing it at our May 5, 2005 meeting, the Environmental Board elected to submit comments and recommendations reflecting the issues discussed below.

1. *Process Waste Water*: The DREIR indicates the project will generate upwards of 500,000 gallons of "second rinse" wastewater that will be discharged to the Orange County Sanitation District ("OCSD") facilities for treatment. However, presently the OCSD is accepting diverted dry weather surface runoff for treatment thereby avoiding direct discharge of this water into the ocean and adding to the bacteria problems that have been experienced at the beaches along Pacific Coast Highway in Huntington Beach. Although the OCSD has current capacity to accept and treat this water, they have indicated that current diversion quantities may be limited in the future due to treatment capacity limitations. We are concerned that the large quantities of project wastewater may result in curtailment of present dry weather diversion quantities due to treatment limitations. We believe that the DREIR should address this issue and provide information describing how the discharge of Project wastewater could impact treatment of dry weather diversion quantities. a

   Since the Project will provide limited direct benefit to the City of Huntington Beach, while adding to the intensity of industrial related consequences, we believe that the

City should negotiate some additional benefits. Of particular interest to Environmental Board members would be some guarantee that OCSD will continue to accept all dry weather diversions at their current levels. Since future costs may be imposed to insure treatment capacity at OCSD, the Project could provide the financial resources thereby relieving the residents of Huntington Beach from that liability. a

2. *Recycling of Construction Debris*: There is no mention of how construction debris will be handled as a result of decommissioning of the existing tanks and other materials that will be removed to allow construction of the new facilities. We believe that it is appropriate to include a discussion of how construction debris will be recycled to avoid landfill disposal. b

3. *Public Perception*: Although DREIR information suggests that there is a low public perception for the Project within the City of Huntington Beach, we believe that there is a high degree of interest in this project particularly in regard to the potential for environmental damage. We recommend revising this statement in the report. c

4. *Unavoidable Environmental Impacts*: Although the Project includes measures to minimize environmental damage, there is no discussion of what mitigation offsets would be included due to long term environmental impacts. The DREIR should include a discussion of how these potential long-term impacts will be monitored so that they can be quantified and what mitigations offsets would be provided. We believe the Project should include long-term monitoring of marine impacts and that all adverse impacts should be mitigated. d

5. *Regional Water Supplies*: Table 3-4 "Projected Orange County Water Demand Through 2020", includes a summary of projected water demands, thereby providing justification for construction of the proposed facilities. Other sources of information regarding future water demands seem to conflict with the information provided in this Table. We recommend that the following additional information be addressed in the DREIR: e

- The Table excludes agricultural water demands that we believe should be included to allow a proper understanding of total water demands. Although projected population increases will cause an increase in water demand, reduction of agricultural acreage that will be consumed for new housing, commercial, and industrial facilities will result in a decrease in water demand. Therefore, in order to understand the combined impacts, a total water demand summary should be provided.
- Based upon information from other sources, it would appear that the estimates for reduced water demand resulting from conservation may be understated. Please provide some basis for how conservation estimates were prepared.
- Please clarify whether or not past projections are actual quantities or prior year projections that have been carried over.
- Provide clarification as to what degree the current OCSD Water Reclamation Project will affect the overall County water balance.

- Finally, there was a substantial reduction in demand between 1990 and 1995 that should be explained to better understand what factors might reduce water demands. **e**

6. *First Rinse Water*: The report states that the first rinse water from the filter cleaning process will be discharged to the OCSD for treatment. Although the quantity of water would be small, this water will have a high salt content that has the potential for damage to the bacteria treatment stage at OCSD. We believe that the report should include a discussion of how this water could impact the OCSD treatment facilities. In addition, the report continues to state that should the first rinse not be sent to OCSD for treatment, it can be flushed into the ocean where, with dilution, it would meet most water quality standards. Further clarification is necessary to explain what conditions would necessitate flushing directly to the ocean and also to describe which water quality standards might not be met, to what degree, and how often this might occur. **f**

7. *First Rinse Diluent Water*: The report states that no City water will be used to dilute the first rinse that will be subsequently sent to OCSD for treatment. We request some clarification regarding the source of water that is to be used for dilution. **g**

8. *Electrical Power Demands*: The Project will require significant electrical power. Recently, there has been a significant discussion in the news regarding the limited capacity of California's electrical system and likelihood that brownouts will become regular occurrences. The report should include a discussion of how the electrical system will be able to provide the Project power requirements while not increasing the likelihood of brownouts. Further, we believe that the Project should be premised upon an interruptible power supply during high State demand periods. **h**

9. *Plant Operation*: The Report states that the plant will primarily run at night to take advantage of off peak electrical rates in one section, but in another it states that the plant will run twenty four hours per day. Please clarify. **i**

10. *Water Line Corrosion*: We believe there should be some discussion of the corrosion potential to the new pipeline proposed for transfer of water to OCSD as well as the existing pipelines that will contact the water through the treatment process. **j**

11. *Water Discharge to Ocean*: It was unclear whether or not the water being discharged to the ocean would meet all discharge requirements. Please clarify that water discharged into the ocean will meet all applicable water quality requirements and if not, a discussion of proposed offset mitigations should be included. **k**

12. *Facilities Post AES Discontinued Operation*: Although the report includes a discussion of how the ocean inlet and outlet piping would be made available, operated, and maintained, in the event that AES discontinues operation, we request that more information be included regarding how the existing AES pumps would be retained and be available for this project during any period whereby the AES facilities may be demolished. **l**

13. *Proposed Water Pipeline*: Although the Project includes a proposed pipeline configuration as well as an alternative routing, there is no discussion as to why each routing is so long. Certainly the construction impacts of either pipeline routing would be significant on the impacted communities. Please provide a discussion justifying the proposed connection points, instead of a connection point closer to the Plant. **m**

14. *Elevated Iron Levels*: The report states that the elevated level of iron in the discharge water will be beneficial to plankton. We believe there should also be a discussion of the potential impacts of iron on the occurrence of red tides in the area that are presently common. Also, in a different discussion it is mentioned that plankton will be affected by the higher salinity. We believe that if there are any negative impacts to the plankton, the discharge should not be considered a nutrient. **n**

15. *Recreational Fishing*: The report states that pelagic species currently inhabiting the area (feeding at the outlet pipe discharge) will simply avoid the area due to the higher salinity thereby avoiding harm. While this is avoidance of harm to fish is good, the fish will be displaced resulting in an areas along the beach with fewer fish. This will result in a significant reduction of shoreline recreational fishing in the area. Although commercial fishing may not be impacted, the report should discuss impacts to shoreline recreational fishing. **o**

16. *Replacement of State Water Project Water*: The report indicates that proposed California desalination projects have the potential to replace water imported through the State Water Project. As indicated, this option would result in a small net increase in electrical power consumption when compared to the power requirements of the State Water Project. However, it is very unlikely that this option could be beneficial to the Municipal Water District of Orange County due to the significantly higher water costs for desalination water versus water from the State Water Project. We believe report language should be revised to include a discussion of what circumstances would justify replacement of State Water Project water with desalination water and how likely those circumstances would arise. **p**

17. *Desalination Plant Size Scale-up*: It should be noted that although there are many proposed desalination plants, extended operation experience of large facilities, similar to the proposed Project, is very limited. If the Project proceeds, it would be appropriate to require quarterly status reports to the City of Huntington Beach regarding the latest operating experience of the larger plant operations. **q**

18. *Private Ownership*: The Project as currently proposed would be privately owned. We are unfamiliar with the potential risks of private ownership of water supplies and whether or not this course of action would be best for the public. However, we also recognize that should this project suffer technical problems that substantially increase financial liabilities, those liabilities would fall on private resources and not the general public. **r**

The Environmental Board appreciates the opportunity to comment on this project and is available to discuss these comments if appropriate. Please contact me with any questions or comments you may have.

S

Yours truly,

A.T. Hendricker, Chairman
ENVIRONMENTAL BOARD

cc: City Council Members and Liaisons to the Environmental Board
Dave Sullivan
Keith Bohr

Response No. 10

City of Huntington Beach Environmental Board
A.T. Hendricker, Chairman

10a. Comment noted. Also refer to Response 17k below.

10b. As stated in Mitigation Measures PSU-6 and PSU-7, appropriate measures will be taken to ensure that the project is in compliance with the City's waste reduction and recycling program. In addition, a waste reduction plan for construction and demolition waste will be required prior to the issuance of a grading permit to ensure that the requirements of AB 939 are met.

10c. Table 7-3 of the DREIR, *ALTERNATIVE SITE COMPARISON*, does not show public perception for the project as low. Rather, it is listed as "moderate". This conclusion is provided in comparison to the other alternatives listed in the tables with many factors taken into consideration, such as land use compatibility, aesthetics, and biological impacts, among others.

10d. The only unavoidable significant impact identified in the DREIR for the proposed project is for construction-related air emissions. Although mitigation is provided to substantially reduce this impact, there are no mitigation measures available that can reduce this impact to a less than significant level. In regards to marine biological resources, impacts were found to be less than significant. Therefore, mitigation in the form of long-term monitoring is not provided in the DREIR. However, additional mitigation requirements may be applicable to the project as part of the regulatory permitting process (e.g. NPDES or CDP permits).

10e. The information provided within Table 3-4, *PROJECTED ORANGE COUNTY WATER DEMAND THROUGH 2020* of the DREIR was taken directly from the Municipal Water District of Orange County's (MWDOC) 2000 Urban Water Management Plan (UWMP). The 2000 UWMP provides local water planning information for Orange County, utilizing a 20-year planning horizon. The table provides historical (based on actual quantities) data and projections through 2020 based on previous trends and Water Use Efficiency (WUE) measures.

10f. As indicated in Table 5.10-8 of the DREIR, the volume of the first rinse is 4,000 gallons per membrane unit and the concentration of this process water under worst-case scenario will have salinity equal to that of seawater, i.e. 33,500 mg/L. As shown on page C-37, Appendix C, of the DREIR the discharge of the OCSD wastewater flow is up to 480 MGD. The wastewater will be fresh – i.e. wastewater plant influent TDS will be 500 mg/L or less. When a 4,000 gallons of desalination plant discharge of 33,500 mg/l of salinity are blended with 480 million gallons a day of 500 mg/L salinity, the salinity of the blended wastewater will be = (0.004 MGD x 33,500 mg/L + 480 MGD x 500 mg/L) / 480.004 MGD = 500.28 mg/L. Increase of OCSD influent TDS from 500 mg/L to 500.28 mg/L will have no measurable effect on the wastewater treatment plant operations and will not damage bacteria treatment stage.

Experience at the 30 MGD City of Los Angeles Terminal Island Treatment plant, located in the industrial port area, which takes seawater from ship washing operations of fish canneries, indicates that the biological wastewater treatment process is not affected until the wastewater influent salinity concentration reaches 3,000 mg/L. The increment caused by the desalination facility operations is negligible as compared to that level.

Discharge to the ocean after treatment in the washwater tank and blending with desalination concentrate and HBGS seawater discharge is proposed as an alternative to the discharge of the "first flush" to the sanitary sewer. This alternative was introduced because discharging this cleaning solution after blending with desalination concentrate is widely practiced worldwide and is the most common approach for disposal of this process water in existing seawater desalination plants.

A detailed laboratory analysis of the membrane process water is provided in Attachment K of the DREIR. Review of summary Table 15B indicates that after blending with the other discharge streams and dilution of 260:1, all parameters of the blend will be in compliance with the applicable water quality standards (California Ocean Plan) at the time the discharge enters the ocean.

10g. The small amount of water that will be used to dilute the first rinse that will be subsequently sent to OCSD for treatment will be desalinated water produced by the Huntington Beach desalination facility.

10h. The cumulative effect of the proposed project's electricity consumption is addressed in Section 6.0 of the DREIR, *LONG-TERM IMPLICATIONS*. On a regional scale, the project would result in a nominal increase in electrical demand in Orange County by approximately 0.8 percent, while that percentage would drop to 0.1 for the Southern California region. Moreover, the facility would operate the reverse osmosis system during off-peak periods to the maximum extent practicable. During emergency interruptions of electrical power, the desalination facility would utilize electricity from the HBGS auxiliary reserve bank or the state power grid, while off-site pump stations would be equipped with underground diesel-powered emergency generators.

10i. Refer to Response 2n, above.

10j. As stated on page 5.6-9 of the DREIR (*PUBLIC SERVICES AND UTILITIES*), the OCSD has indicated that the pH and flowrate of the potential discharge of waste cleaning solution would be acceptable. In addition, the project would require a Sewer Connection Permit from OCSD, and would be subject to their requirements for operation (including a review for potential corrosion impacts). For product water, per Mitigation Measure PW-5, a corrosion monitoring system would be installed at points of interconnection with existing water pipelines to ensure that corrosion impacts do not occur. Also refer to Appendix O, *DISTRIBUTION SYSTEM CORROSION CONTROL STUDY,* of the DREIR.

10k. The discharge from the proposed project, upon dilution with the HBGS cooling water effluent, would meet all applicable water quality requirements. Moreover,

the proposed desalination facility would be subject to all regulatory requirements, including National Pollutant Discharge Elimination System (NPDES) regulations.

10l. Refer to Response 1g, above.

10m. The proposed pipeline routing(s) of the product water pipeline takes the shortest path to the desired connection point of the OC-44 transmission line. This connection point was chosen as it is the nearest location where the regional distribution system is sufficiently large enough in diameter (42 inches) to convey water into the regional transmission line.

10n. Comments about plankton and salinity deal with basic features of their drift through the discharge plume (Appendix C of the DREIR) and general features of their adaptation to changes in salinity (Appendix S of the DREIR).

The concentration of iron in seawater is very low. However, it is an essential nutrient for phytoplankton (it is a necessary structural element in some enzymes and in the chlorophyll molecule, which is needed for photosynthesis). Other nutrients for phytoplankton (and for dinoflagellates, which is what the red tide organisms are) are required for growth. Two of the most important nutrients are nitrogen and phosphorus. These two elements are present in great supply in fertilizers used on lawns and farms and they thus enter coastal waters through storm drains and sewage outfalls. High concentrations of these nutrients have been linked to the formation of red tides, which often occur after periods of ocean mixing, termed upwelling, that bring nitrogen and phosphorus containing waters to the surface.

While iron is also in fertilizers and thus in runoff water, it is far less soluble in seawater than either nitrogen or phosphorus and the chemical actions of seawater on iron keep it from increasing greatly in concentration. Specifically, iron is oxidized by seawater and forms an insoluble flocculent, which means that it is put into a chemical form that makes it unavailable to phytoplankton. For this reason iron cannot accumulate to concentrations that would be toxic. However, in small quantities (usually parts per billion) iron is an important trace nutrient. However, once iron concentration reaches the level where it is oxidized, it is unavailable to biological processes and thus neither a nutrient nor a toxin. Thus, small amounts of iron can have a nutrient function but iron would never reach toxic concentrations or trigger red tides. Nitrogen and phosphorus are more available in seawater than is iron and these are key elements contributing to the occurrence of red tides and other plankton blooms.

10o. As stated within DREIR Section 5.10, *OCEAN WATER QUALITY AND MARINE BIOLOGICAL RESOURCES*, under the "low flow" scenario, the discharge salinity at mid-point in the water column would decrease to 20 percent above background salinity within 20 feet of the outfall tower, 15 percent over background salinity at 100 feet, and 10 percent over background salinity at 1,200 feet. Note that a variation of 10 percent salinity can be tolerated by most fish species. Given the localized area of the plume that would have a salinity over 10 percent of the background, it is not expected that shoreline sport fishing would be adversely effected by the project.

10p. This comment requests that the DREIR "include a discussion of what circumstances would justify replacement of State Water Project water with desalinated water and how likely those circumstances would arise." That discussion is included at page 3-38 of the DREIR. Also refer to Response 1h, 2i and 7r, above.

10q. The requirement for quarterly status reports is not currently included as a mitigation measure within the EIR, as such a requirement does not reduce the effects of any of the potential environmental impacts of the project.

10r. Comment noted. No response is necessary.

10s. This paragraphs provides a conclusion to the comment letter and does not require a response.

COMMENT 11

Post-it® Fax Note 7671	Date 5.27.05	pages 6
To Ricky Ramos	From Greg Heil	
Co./Dept. HB	Co. IRWD	
Phone #	Phone # (949) 453-5845	
Fax # 714/374.1540	Fax #	

IRVINE RANCH WATER DISTRICT 15600 Sand Canyon Ave., P.O. Box 57000, Irvine, CA 92619-7000 (949) 453-5300

May 27, 2005

Ricky Ramos
Associate Planner
City of Huntington Beach
2000 Main Street
Huntington Beach, CA 92648

Subject: Recirculated Draft Environmental Impact Report (DEIR)
Seawater Desalination Project at Huntington Beach

Dear Mr. Ramos:

Irvine Ranch Water District (IRWD) has received and reviewed the subject DEIR and offers the comments that follow.

IRWD is a multi-service agency located in central Orange County that provides potable and nonpotable (including recycled) water supply, wastewater collection, treatment, and disposal, and urban runoff treatment services to a population of approximately 316,000 covering an area of 132 square miles. The IRWD service area includes all of the City of Irvine and portions of unincorporated Orange County and the Cities of Lake Forest, Tustin, Santa Ana, Costa Mesa, Orange, and Newport Beach (see attached map of the IRWD service area).

IRWD has two primary sources of potable water: imported water supplied by the Metropolitan Water District of Southern California (MWD) and local groundwater. IRWD's primary sources of nonpotable water are recycled water provided by the Michelson Water Reclamation Plant (MWRP) and the Los Alisos Water Reclamation Plant (LAWRP), and local and imported untreated water.

a

The proposed Seawater Desalination Project (Project) would affect IRWD's potable and nonpotable water customers, as well as those customers in other cities and districts who will receive Project water. While IRWD supports development of additional water sources for southern California, maintenance of water quality and customer satisfaction are our highest priority. As proposed, elements of the Project have the potential to negatively impact both of these priorities.

Introduction and Overview

Pursuant to Exhibit 3-19 of the DEIR, IRWD is expected to be the largest user of Project water, which will be conveyed through the existing regional Orange County water distribution system primarily to customers in central and south Orange County. Consequently, IRWD is very concerned about the potential environmental impacts of this water on IRWD's facilities and

customers. As described more fully below, these impacts are focused on the potential effect of the quality and compatibility of Project water on IRWD's potable and nonpotable water systems and customers.

a

Potable Water System

Water Compatibility Issues

The blending of Project water with existing supplies will alter water quality in both regional conveyance facilities (e.g., East Orange County Feeder No. 2 – mixing of Project water and imported water) and in IRWD's local potable water distribution system (Project water, imported water, groundwater), and may cause problems related to disinfection and corrosion control.

b

Disinfection

Effective initial disinfection and maintenance of chlorine residuals in distribution systems is critical to ensure the safety of drinking water supplies from the standpoint of bacteriological/pathogen water quality. Maintenance of chlorine residuals is complicated by the proposal to introduce Project water into regional and local distribution systems. The EIR must include development of a monitoring plan that includes specific methods to adjust and control the molar ratio of chlorine to ammonia within a range acceptable to MWD, the Municipal Water District of Orange County (MWDOC), IRWD and other appropriate governmental entities. This will ensure that chlorine levels are maintained and that there will be no increased nitrification episodes or impacts on IRWD Total Coliform Rule compliance.

c

In addition, the Project's proposed use of sodium hypochlorite for disinfection will add to sodium levels in the Project water (as described more fully below). The DEIR should evaluate the impact of sodium hypochlorite use on sodium levels and should also evaluate alternative disinfection methods that would reduce or eliminate the impact on sodium levels.

Disinfection By-Products (DBP)

The Project water will contribute an increased amount of bromide. Bromide is a DBP precursor, and its presence within IRWD's distribution system could result in the formation of additional amounts of brominated DBPs. Legislation is pending in the State of California mandating that the Office of Environmental Health and Hazard Assessment (OEHHA) establish Public Health Goals (PHGs) for each individual tri-halomethane (THM) and five halo-acetic acid (HAA5) DBPs by January 2007. OEHHA's position is that this action is on track to complete the THM PHGs by the January 2007 deadline and that establishing the HAA5 PHGs is achievable by the same date. A shift toward brominated DBPs could cause IRWD to exceed these new PHGs. The DEIR must address these impacts and provide appropriate mitigation measures.

d

Corrosion Control

Based on the results of IRWD's Lead and Copper Monitoring Program, IRWD is not currently required to implement corrosion control for the potable water system. Although the DEIR indicates that Project water will be moderately non-corrosive (target "corrosivity index" (SI) of 0.0 to 0.5), the substantially higher levels of proposed chloride may result in other corrosion problems. More specifically, a previous study by the American Water Works Association Research Foundation (AWWARF), in which IRWD participated, indicated that MWD water in IRWD's distribution system had the potential of causing "pitting" due to chloride levels. Although this potential was consider relatively low and did not warrant the use of corrosion inhibitors, the higher levels of chloride associated with the introduction of Project water will increase the corrosion potential and may require the use of costly phosphate based corrosion inhibitors by IRWD.

The DEIR needs to analyze the specific impact of the proposed Project on corrosivity of IRWD's potable water system, including an analysis of corrosion control and operational methods as mitigation measures. Tests performed in other areas under different conditions would not provide adequate analysis of IRWD-specific conditions. In addition, if IRWD has to change operational methods due to these impacts and incur additional capital and O&M costs, the Project proponent must include mitigation measures as a part of the environmental impact report that clearly state IRWD will be reimbursed for these additional costs.

e

Customer Acceptance and Confidence

IRWD is committed to *improving* the appearance, taste and quality of potable water we serve to our customers. The proposed Project has the potential to negatively impact these factors, thereby altering customer perceptions about the quality of the water supply. These perceptions can negatively affect the community's view of IRWD and result in significant public relations issues.

All new sources of potable water to IRWD must be at least equal to or better than the quality of water we are currently serving our customers. IRWD is committed to maintaining consumer confidence. Degradation or perception of degradation by our customers of appearance, taste, and quality of water as a result of the Project is not acceptable.

The DEIR does not adequately analyze the impacts of the proposed Project, and in particular, the Project's anticipated elevation of levels of sodium, chloride, bromide and boron on the taste, odor, safety and appearance of existing potable water supplies. Nor does it provide mitigation measures that address consumer concern and purveyor liability for product water quality. If future complaints received from customers by IRWD are determined to result from Project water, the Project proponent or owner must be responsible for corrective action.

f

Nonpotable Water

Recycled Water Customer Concerns - Constraints on Water Reuse

IRWD has an extensive recycled water program that provides water to meet nearly 20% of the District's overall demands. IRWD aggressively promotes the use of recycled water and produces high quality water that meets our customers' water quality needs. We are concerned that the Project water will significantly increase the sodium and chloride levels in IRWD wastewater that provides the basis for the production of recycled water, and the potential adverse impacts these levels would have on water quality in our recycled water system. Approximately 90% of IRWD's recycled water is used for irrigation, and higher levels of sodium and chloride could result in plant toxicity and soil permeability issues with these customers. g

More specifically, higher levels of sodium in recycled water resulting from introductions of Project water into the IRWD potable water distribution system can cause issues with soil permeability, plant nutrient exchange, and plant damage (leaf burning) when this water is recycled. Permeability relates to the "sodium adsorption ratio" (SAR) of the water. The "Sodium Adsorption Ratio" section of a report prepared by McGuire Environmental in January 2005 ("Water Recycling Using Desalinated Seawater in the Source Water Supply-Implications for the Irvine Ranch Water District Water Recycling Program") confirms that the higher sodium levels in Project water will increase SAR values in IRWD's recycled water (Figures 10 and 11). This is a concern since the predominately clay soils in the Irvine area are particularly sensitive to higher SAR's. h

Another result of increased SAR, which leads to lower soil permeability, is an increase of surface runoff from irrigation and rainfall. This increased runoff carries additional pollutants to receiving waters, in turn increasing pollution of surface waters and beaches.

It is IRWD's goal to maintain or enhance the quality of all water it serves to its customers, not allow it to be degraded. We believe that the elevated levels of sodium, chloride and possibly boron in the Project water may *reduce* the quality of IRWD's recycled water. These impacts may result in decreased recycled water usage by our customers, putting a further burden upon potable water supplies. This is contrary to both IRWD's and the State of California's goals which call for recycled water to be maximized for all approved uses. Inasmuch as Orange County agencies have expended considerable time and money to develop extensive recycled water programs, the potential for Project water quality to impact regional water resources is significant. Reductions in recycled water use would necessitate the increased use of imported MWD water or development of additional local supplies at substantial cost. i

In addition, inorganic carbon (bicarbonate) levels in IRWD's drinking water are likely to change as a result of the Project, resulting in secondary impacts on the MWRP Biological Nitrogen Removal (BNR) process. More specifically, lower bicarbonate levels in IRWD wastewater will decrease pH and alkalinity, and require additional pH control measures to augment the BNR j

process. The lower levels of bicarbonate will tend to lower the alkalinity prior to chlorination resulting in the need for additional chemical treatment to meet NPDES requirements at MWRP.

To address the potential impacts described above, the DEIR must evaluate mitigation, including a monitoring component and an adjustment and control methodology, overseen by the appropriate water supply agency. j

Sodium and Chloride Reclamation Permit Limits

The Regional Water Quality Control Board (RWQCB) recently adopted revised water quality objectives for mineral limits for the Irvine basin that replace the current sodium and chloride limits with an overall total dissolved solids (TDS) based limit. However, IRWD's current operating permit for MWRP includes specific sodium and chloride limits. This permit is expected to be renewed in 2006 and may include the revised basin mineral limits, however such inclusion is speculation. The permit renewal process will include a review of the appropriateness of applying the new water quality objectives to MWRP, and will involve public input. Consequently, IRWD has no assurance that its current permit sodium and chloride limits will be changed. If they are not changed, elevated sodium and chloride levels associated with the Project water would cause MWRP to exceed its permit limits, and necessitate that IRWD construct additional capital facilities to remove the sodium and chloride (reverse osmosis or ion exchange along with brine disposal facilities) and incur higher O&M costs. k

The DEIR must include a mitigation measure whereby the Project proponent or owner will reimburse IRWD for these additional costs.

Conclusion

In conclusion, IRWD is very receptive to proposals to develop alternative water supplies, including the proposed Project. However, conditions must be placed on the Project to required product water from the Project to undergo a treatment process that reduces the amount of sodium, chloride, bromide and boron. Conditions must also include appropriate increases in calcium, magnesium and alkalinity (buffering) to better match current IRWD potable water supplies thereby minimizing the impacts identified herein. In order to reduce risks associated with the Project, IRWD strongly recommends that the Project proponent add an additional level of treatment to the currently proposed treatment process. l

Diligent efforts by the City and Project proponent to address the concerns outlined in this letter will be greatly appreciated, and are in our view necessary for the completion of an adequate EIR. The Final EIR will require a Mitigation and Monitoring Plan for addressing potential impacts. It is expected that much of the monitoring will be conducted by public agencies, in addition to the Project proponent. Thus, multi-party operating agreements among the Project proponent, the monitoring agencies, and retail agencies receiving the Project product water will need to be executed before any water is received by those retail agencies. It seems prudent to negotiate those agreements prior to any detailed planning or design of the Project. m

Over the last several years, water quality requirements have become more stringent due to various technological, social, and environmental developments. It is likely that requirements will continue to change in the future. Thus, the Project and any attendant agreements must provide for adaptive management of those changes.

IRWD is very willing to continue a dialogue with the Project proponent and City to discuss our concerns about this Project. We understand the importance to our community of the success of appropriate ocean desalination and are supportive of using alternative water supplies to supplement our existing systems. However, IRWD has many concerns regarding the Project as outlined herein and requires satisfactory resolution before we can support the Project.

n

If you have any questions regarding our comments or need additional information, please feel free to contact me at (949) 453-5860.

Sincerely,

Norris Brandt, PE
Environmental Quality Manager

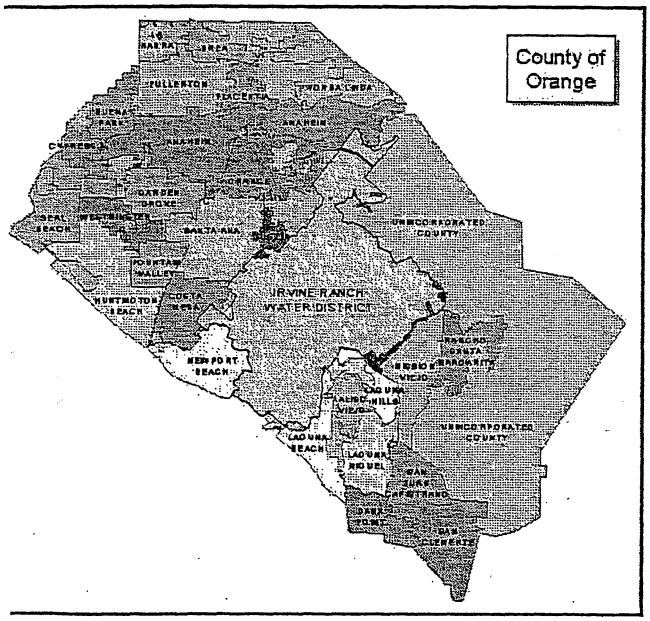
Attachment – IRWD service area map

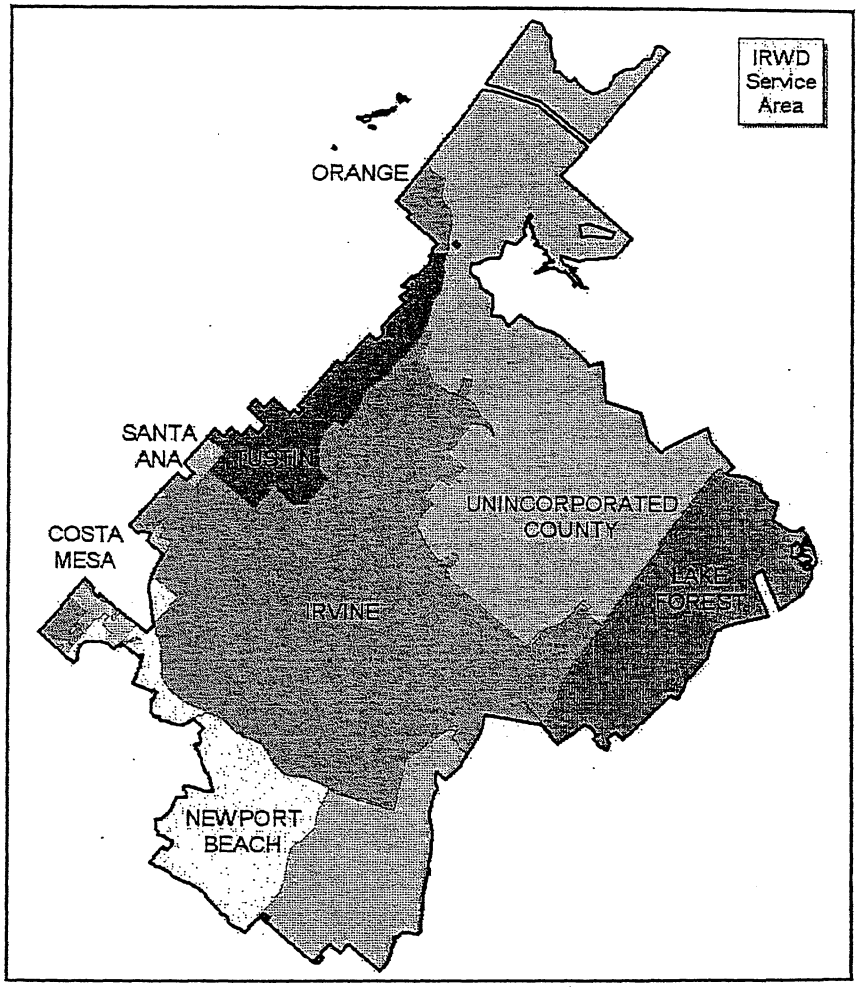
cc: Richard Bell, MWDOC

District Location

District Location

- Service Area of 133 Square Miles is 20% of County
- Serve All or Portions of:
  - City of Irvine
  - City of Lake Forest
  - City of Tustin
  - City of Newport Beach
  - City of Costa Mesa
  - City of Orange
  - Unincorporated County





Response No. 11

Irvine Ranch Water District
Norris Brandt, P.E., Environmental Quality Manager

11a. This text provides an introduction to the comment letter and does not require a response.

11b. Water compatibility issues are addressed in Section 5.11, under *ORANGE COUNTY WATER DISTRIBUTION SYSTEM*. As indicated on page 5.11-17 of this section, the desalinated water quality will be compatible with other existing sources of potable water delivered in the distribution system.

11c. The project proponent has committed to the development and implementation of a product water quality monitoring program. As indicated on page 5.11-20 of the DREIR, this project will include monitoring of product water quality, including concentration of disinfectant at the entrance point of the distribution system: "A monitoring program would be implemented for this location incorporating the following parameters: coliform bacteria, heterotrophic bacteria, chlorine residual, disinfection byproducts, and aesthetic parameters such as turbidity, odor and color, as well as corrosion indices. The purpose of this sampling point is to verify on a regular basis that no degradation of water quality has occurred during any period of storage at the facility site or in the transportation pipeline and that mixing of desalinated water with water from other sources continues to be compatible". Specific operational methods to adjust and control the molar ratio of chlorine and ammonia within a range acceptable to MWD, MODOC, IRWD and other users of the desalinated water will be developed during the detailed design of the project in coordination with all pertinent water agencies.

Sodium hypochlorite is widely used for disinfection of potable water by most Orange County water agencies. Sodium hypochlorite will be added in a very small concentration, only 2 to 4 mg/L. Therefore, the amount of sodium added because of the disinfection process will be 30 times lower than that in the product water – i.e., 4 mg/L vs. 120 mg/L. The maximum increment in sodium concentration of the product water due to use of sodium hypochlorite for disinfection will be only 3.3% (124 mg/L – 120 mg/L / 120 mg/L = 3.3%).

11d. Under the current regulations there are no limits for the individual compounds that contribute to the drinking water TTHM and HHA5 concentrations. If the State of California Office of Health and Hazard Assessment (OEHHA) establishes actual Public Health Goals (PHGs) for each individual THM and HAA5 DPB, and if under these future regulations the project actually may cause the IRWD to exceed these PHGs, then the desalination facility treatment will be upgraded to meet these regulations. The DREIR is not required to provide a speculative assessment of future regulations. Also refer to Response 7c, above.

11e. As indicated on page 5.11-17 of the DREIR, "similar to all other potable water sources in the distribution system, product water from the Seawater Desalination Project at Huntington Beach will be chemically conditioned at the treatment facility prior to delivery to the distribution system to mitigate its corrosivity".

The corrosion effect of chloride levels on the distribution system will be further investigated by completing operational studies during the implementation phase of this project. If those studies indicate the need to control chloride related corrosion then operation measures such as addition of corrosion inhibitors other than lime (i.e., phosphate based corrosion inhibitors), and/or reduction of chloride levels in the desalinated water will be implemented. The specific arrangements to address these operational issues will be addressed in accordance with Mitigation Measure PW-9.

11f. Appearance, taste and quality of the desalinated water are described in Section 5.11 of the DREIR. No specific evidence is offered by the commentator leading to the conclusion that "the proposed Project has the potential to negatively impact these factors thereby altering customer perceptions about the quality of water supply". Marina Coast Water District has been blending desalinated seawater with its other potable water sources for over five years, and their consumer reports, which are available on the internet, indicate that the use of desalinated water does not have negative impact on consumer acceptance and confidence. Page 5.11-20 of the DREIR presents other examples indicating positive public acceptance of desalinated water.

11g. As indicated in Section 5.11 of the DREIR, *PRODUCT WATER QUALITY*, the desalinated water quality will meet or exceed all applicable drinking water regulations. These regulations are developed with the consideration that the drinking water will also be used for irrigation. There are no regulations limiting the use of drinking water for irrigation. Therefore, no significant environmental impacts are anticipated when using desalinated seawater.

As shown in Table 5.11-3 of the DREIR, the desalinated water will have a chloride level of 180 mg/L, which is significantly lower than that of the California DHS/Safe Drinking Water Act limit of 250 mg/L. The applicable regulations do not limit the level of sodium in the drinking water.

The latest edition of the US EPA Guidelines for Water Reuse (EPA/625/R-04/108) of September 2004, does not pose specific chloride limits for short or long term use of water for irrigation. These guidelines however, establish a "recommended TDS limit" of 500 to 2,000 mg/L. The guidelines state that "Below 500 mg/L, no detrimental effects are usually observed" (Table 2-7). The desalinated seawater will have TDS concentration of 300 mg/L, which is significantly below the recommended limit for irrigation.

As indicated in the Guidelines for Water Reuse (section 2.3.2.2 Sodium), "the potential influence sodium may have is indicated by the sodium-adsorption-ratio (SAR)". SAR expresses the concentration of sodium in water relative to calcium and magnesium. According to the Guidelines a measurable irrigation effect of sodium is observed "when sodium exceeds calcium by more than 3:1 ratio. As indicated in Table 5.11-3 of the DREIR, the sodium and calcium (alkalinity) in the water is 120 mg/L and 50 mg/L, respectively. Therefore, the sodium to calcium ratio is 120 mg/L: 50 mg/L = 2.4, which is less than the threshold of 3:1. Since

the actual sodium-to-calcium is below the limit established by US EPA, the desalinated water is expected not to have measurable effect on irrigation.

If water quality adjustments are needed to accommodate specific needs of a water user, the SAR can be adjusted by either addition of lime to the desalinated water to increase the calcium content of the water, or by reducing the level of sodium in the water. Desalinated water of lower levels of chloride and boron may be produced to address actual concerns of the IRWD customers of reclaimed water containing excessive levels of sodium, chloride or boron attributed to the use of desalinated seawater.

These operational issues would be addressed in accordance with Mitigation Measure PW -9.

11h. Refer to Response 11g, above.

11i. As stated in the DREIR, the project's product water quality will meet all applicable water quality regulations, including IRWD's reclaimed water quality permit requirements for sodium, chloride and boron applicable at the time the desalination facility begins to supply water.

The proponent's commitment to comply with IRWD's and other users water quality requirements associated with water reuse will be addressed in accordance with Mitigation Measure PW-9.

11j. As indicated in Section 5.11 of the DREIR, the pH of the desalinated water will match that of the other water sources and therefore will not have a measurable effect on MWRP wastewater influent. Lime (calcium hydroxide) will be added at the desalination facility to adjust the desalinated water pH and alkalinity as needed to meet the target levels needed to mitigate any potential impacts on the MWRP BNR Process. The BNR process at the MWRP uses a combination of nitrification and dentrification technologies. This BNR process is designed with provisions that allow most of the alkalinity used during nitrification portion of the treatment process to be recovered during wastewater denitrification and therefore, no significant effect on the MWRP BNR treatment costs are anticipated. Refer to Response 11i, above.

11k. As indicated in Section 5.11 of the DREIR, the proponent has committed to meet all product water quality requirements applicable at the time the project is ready to deliver water into the Orange County distribution system, including compliance with the IRWD's reclamation permit limits for sodium and chloride. Refer to Response 11i, above.

11l. The proponent has committed to meet all applicable water quality regulations and provide mitigation measures as needed to accommodate the water quality requirements of the users of the project product water.

The proponent's commitment and specific technological provisions (such as additional level of treatment) and commercial arrangements needed to be implemented to comply with the specific water quality requirements of IRWD, and

any such potential future requirements of other water users, will be addressed in accordance with Mitigation Measure PW-9.

11m. Mitigation measures to address the operational concerns indicated by IRWD are included on pages 5.11-22 through 5.11-24 of the DREIR.

The certification of the DREIR does not oblige the retail water agencies in Orange County, such as IRWD, to purchase water produced by the project.

11n. The proponent has developed a project that has the flexibility to accommodate future regulations and adapt to more stringent water quality goals. In other instances, water quality issues regarding the introduction of new water supplies into the regional and local distribution system are addressed under normal operating adjustments. Refer to Response 11d, above.

COMMENT 12

MUNICIPAL WATER DISTRICT OF ORANGE COUNTY

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www.mwdoc.com

May 27, 2005

Mr. Ricky Ramos
City of Huntington Beach Planning Department
2000 Main Street
Huntington Beach, CA 92648

Dear Mr. Ramos,

Subject: **Comments on Recirculated Draft Environmental Impact Report No. 00-02 for the Seawater Desalination Project in Huntington Beach**

We previously submitted comments on the original DEIR for the subject project. These comments are in addition to those earlier comments and are made in response to new issues raised, not clarified, or addressed in the Recirculated DEIR. Our comments primarily address issues relative to water supply and system reliability.

As a matter of reference, MWDOC is a member agency of the Metropolitan Water District of Southern California, and provides wholesale deliveries of imported water in Orange County. MWDOC also provides regional water resource planning in Orange County, including planning for new water supplies. MWDOC is currently conducting feasibility studies for an ocean desalination project in Dana Point and jointly with San Diego County Water Authority at San Onofre. a

The Poseidon Resource proposed Seawater Desalination Project has not received any interest in contracting for this proposed supply source from any of the retail or wholesale water agencies in Orange County. At this time, MWDOC's Board of Directors has not taken any action to contract for water from the Poseidon Resource project; however, our Board has expressed interest in preservation of the site for future consideration for an ocean desalination project.

Following are specific comments on the Recirculated Draft Environmental Impact Report.

Executive Summary

Under the Summary of Project Alternatives, "No Project" Alternative, page 1-21 paragraph 2 under 1.3 states that the "No Project" alternative "...fails to meet the basic project needs and objectives (as stated in Section 3.4 and 3.5)." This statement is misleading.

The "No Project" alternative essentially consists of the policies, programs and plans of the Metropolitan Water District (MET), its member agencies, including MWDOC, and retail water agencies to meet their future water supply needs. A diversified water management and supply portfolio has been adopted by MET in its Integrated Resource Plan, July 2004 Update. This IRP consists of a diversified mix of imported water supply programs, storage projects, water transfers, water use efficiency measures, recycling and desalination projects. We believe these collective plans adequately set forth a program to assure water supply reliability over the next 20 years. The Recirculated DEIR needs to present the "No Project" alternative in a more balanced light and to indicate that the proposed project is not at this time specifically included in those plans. See below for a more detailed discussion of the treatment of the "No Project" Alternative.

b

Section 7.0 Alternatives to the Proposed Action

In this section, alternatives to the proposed action are presented and rejected. It is evident that this analysis was made to support the proposed project. We respond to each of the major alternatives that were rejected.

c

Section 7.1 "No Project" Alternative. The first paragraph on page 7-3 states that the "No Project" alternative is not presently being considered because it fails to meet project objectives. The project's needs and objectives are described beginning on page 3-36. These needs and objectives are substantially the same water supply and resource management objectives that form the foundation of efforts of the California Bay-Delta Authority, California Department of Water Resources, MET, MWDOC, and other water supply agencies to meet the future water management and supply needs of California. These objectives are found in various water agency policies, programs and plans.

d

The statement that the "No Project" alternative does not meet these objectives is misleading, incorrect and self-serving. Policies, programs, plans and projects of these agencies are being carried out to assure an adequate water supply well into the future. It should also be noted that the proposed project is not at this time an adopted supply component of MET, MWDOC or other Orange County water supply agencies. Although ocean desalination is included as a buffer supply

component in MET's IRP, the current target was set to meet the projected needs of its member agencies. d

Further, the second paragraph on page 7-3 states that adoption of the "No Project" alternative "...would result in shifting the obligation for meeting a portion (up to 56,000 afy) of future water demands from the project to...." other sources. This statement infers that water supply agencies would have to develop new supplies without the project. It should be recognized and made clear that the proposed project is an alternative supply source to the adopted water management and supply programs of MET and its member agencies. A more accurate characterization should be provided in this section of the report to reflect that the "No Project" alternative is in effect implementation of the MET IRP, including ocean desalination projects being undertaken by its member agencies. e

Comparison to Adopted Water Management and Supply Programs. Section 7.1 continues with sections that reject 56,000 afy of conservation, imported water supplies, groundwater supplies and local resource project development as alternatives to the project. These are not alternatives to the proposed project. As stated above, the proposed project is an alternative to MET's IRP. The discussions presented to reject these water resource management and supply options are merely the point of view of the author. It should also be noted that the proposed project's 56,000 afy yield, when added on top of the other ocean desalination proposals from five of MET's member agencies, would exceed the current adopted buffer supply in MET's IRP, as discussed below. f

Ocean Desalination Projects. MET's ocean desalination program has received five proposals from its member agencies totaling 126,000 afy out of a target of 150,000 afy. Some member agencies have indicated that they may increase their requests in future years as their projects proceed forward and ocean water desalination becomes an integral part of the region's water supply. The proposed project yield of 56,000 afy would add to the local supply; but at this time it is likely to exceed member agencies projects and targets incorporated in the 2004 IRP. This suggests that the timing of the project appears to be too early. However, gaining various permits and approvals for the project, including site acquisition would be beneficial to a future project. g

In Orange County, MWDOC is pursuing an ocean desalination project in Dana Point, in South Orange County and with San Diego County Water Authority, in the San Onofre area. MWDOC is not considering participation in an ocean desalination project in Huntington Beach. Also, to our knowledge there are no other current customers for the proposed project. However, MWDOC does support preservation of the Huntington Beach site for a future desalination project. This proposed action would provide the land use designation for the proposed project, which is part of the process for preservation of the site. h

The proposed Dana Point Ocean Desalination Project site is MWDOC's preferred initial ocean desalination project site in Orange County. The reason for this preference is the location of the Dana Point project. South Orange County receives 95 percent of its potable supply from one distant treatment plant in Yorba Linda. System reliability improvements are a critical area of need for South Orange County. The Dana Point Ocean Desalination Project is one of several proposed projects to improve system reliability in South Orange County. The Huntington Beach site does not provide the same level of system reliability benefit as MWDOC's Dana Point Ocean Desalination Project. The Recirculated DEIR when referring to MWDOC's project should note the system and supply reliability features of the proposed Dana Point Ocean Desalination Project. h

Section 7.2 "Alternative Site" Alternative. The Recirculated DEIR looks at alternative sites, including the location planned for the MWDOC Dana Point Ocean Desalination Project. The Recirculated DEIR should be made clear that this site was not considered because of the 56,000 afy size of the proposed project. i

On page 7-8, under the paragraph entitled "Ocean Water Quality and Marine Life" reference is made to MWDOC's consideration of the use of "Beach Wells". The next sentence states *"Although a beach well intake system may result in decreased marine biological impacts compared to the proposed project, the benefit is negated somewhat by the need to construct a new ocean outfall for concentrated seawater discharge"*. This statement is misleading. MWDOC is considering using available capacity in the SOCWA outfall, not constructing a new outfall. Furthermore, MWDOC is investigating the feasibility of constructing a subsurface intake system that would avoid marine biological impacts as well as eliminating aesthetic and minimizing public use impacts to below less than significant levels. j

MWDOC is also working with the South Orange County Wastewater Authority on use of available wastewater outfall capacity for blending and disposal of the concentrated seawater from the reverse osmosis membrane treatment process. MWDOC is not at this time considering construction of a new ocean outfall, as may be inferred from this Recirculated DEIR statement. For a 56,000 afy sized project at this location the Recirculated DEIR is correct, that a new feedwater intake and ocean disposal outfall would be necessary. This section needs to be clarified regarding the distinctions between the two proposed projects. k

Table 7-3 purports to provide a comparison of alternative sites. It needs to be made clear that this table addresses construction of a project yielding 56,000 afy. Otherwise, it is misleading, because many of the opinions on impact are incorrect for a smaller, differently configured project such as that being pursued by MWDOC. l

Thank you for the opportunity to review the Recirculated Draft EIR and provide comments.

If you should have any questions or need additional information to complete your response to these comments, please do not hesitate to contact the undersigned. m

Sincerely,

Richard B. Bell, P.E.
Principal Engineer

Response No. 12

Municipal Water District of Orange County
Richard B. Bell, P.E., Principal Engineer

12a. These paragraphs provide an introduction to the comment letter and do not require a response.

12b. This text provides an introduction to a more specific comment discussed below. Refer to Response 12d, below.

12c. This paragraph provides an overview of forthcoming comments regarding alternatives, and no response is necessary.

12d. This comment maintains that the DREIR is "misleading, incorrect and self-serving" when it states that the "No Project" Alternative does not meet the project's objectives (the six project objectives are listed on Page 3-45). However, the DREIR is correct when it states (at page 7-3) that the "No Project" Alternative fails to meet the basic project objectives. While the "No Project" Alternative may provide a reliable supply of water to Orange County, it does not provide a "local source" that is (1) sustainable independent of climactic conditions (in other words, "drought proof") or (2) sustainable independent of the availability of imported water supplies or local groundwater supplies. In addition, the "No Project" Alternative will not meet the project objectives of reducing the salt imbalance of current imported water supplies or of minimizing demands on the imported water system. Finally, the "No Project" Alternative will not remediate the project site. For these same reasons, the commentator's characterization of the project objectives as "substantially the same" as those of MWDOC and other water purveyors is incorrect. Also refer to Response 2h, above.

12e. Refer to Response 7t, above.

12f. The proposed project is not "an alternative to MET's IRP" as suggested in this comment. In fact, at page 3-41, the DREIR recognizes that the project is independent from the MWD's Seawater Desalination Program. The project is a proposal to develop 56,000 acre-feet of desalinated seawater as a new supply. For purposes of comparison with the proposed project, the "No Project" Alternative (based on existing water plans) projected reasonably foreseeable increases of 56,000 acre-feet per year in particular water resource management and supply options (that are identified in existing plans), including projected increases in conservation, imported water supplies, groundwater supplies and local resource project development (including recycling projects).

12g. Comment noted. No response is necessary.

12h. Comment noted. The suggested change has been incorporated into Section 3.0 of the Responses to Comments, *ERRATA.*

12i. The suggested change has been incorporated into Section 3.0 of the Responses to Comments, *ERRATA.*

12j. Reference to a new ocean outfall at MWDOC's proposed desalination project in Dana Point have been removed. Refer to Section 3.0 of the Responses to Comments, *ERRATA.*

12k. The suggested change has been incorporated into Section 3.0 of the Responses to Comments, *ERRATA.*

12l. The suggested change has been incorporated into Section 3.0 of the Responses to Comments, *ERRATA.*

12m. This text provides a conclusion to the comment letter, and does not require a response.

Orange County Fair & Exposition Center
32nd District Agricultural Association
88 Fair Drive
Costa Mesa, California 92626-6598
(714) 708-3247 - Voice
(714) 641-1783 – Fax

COMMENT 13

City of Huntington Beach
MAY 31 2005

May 27, 2005

Mr. Ricky Ramos
City of Huntington Beach
2000 Main Street
Huntington Beach, CA 92648

Subject: Seawater Desalinization Plan at Huntington Beach Recirculated Draft Environmental Impact Report (SCH No. 2001051092)

Dear Mr. Ramos:

Thank you for the opportunity to review and comment on the Recirculated Draft Environmental Impact Report (DEIR) for the Seawater Desalinization Plan at Huntington Beach (SCH No. 2001051092). The 32nd District Agricultural Association (32nd DAA) and staff of the Orange County Fair and Exposition Center (OCFEC) focused their review of the EIR on those aspects of the project that relate to OCFEC operations and property. **a**

1. The 32nd DAA and the OCFEC Corporate Officer has no record of receiving a copy of the Notice of Availability or a copy of the DEIR. The 32nd DAA and the OCFEC are State Agencies under the Department of Agriculture and should have been noticed during both the scoping process and the DEIR public review period pursuant to State California Environmental Quality Act (CEQA) Guidelines Section 15086. As a State Agency that exercises authority over resources that may be affected by the proposed project, please add the 32nd DAA to your mailing list. **b**

2. The Primary Conceptual Pipeline Alignment shows that a pipeline will be installed "off pavement" along the northern side of Fair Drive adjacent to the OCFEC. It is unclear from Exhibit 3-3 or Chapter 3.0 Project Description exactly where the pipeline will be installed (e.g., in the street right-of-way, under the sidewalk/bike trail, or closer to or on OCFEC property). **c**

    a. Please provide clarification regarding the location of the proposed pipeline in Fair Drive.

    b. Will OCFEC parking facilities be impacted by construction? **d**

    c. Please provide a description of "off pavement" construction. **e**

3. If the pipeline or pipeline installation encroaches on OCFEC property in any way, the 32nd DAA will become a Responsible Agency under CEQA with authority to approve or deny applications for easements on the property. **f**

4. The OCFEC is a year-round exhibition, conference, and event center. The primary function of the OCFEC is to host the annual summer Orange County Fair. Approximately 964,000 people attended the 2004 summer Fair. As a year round community venue, the OCFEC is committed to the education, safety and enjoyment of its public constituency. For example, approximately 75,000 elementary school students visit the OCFEC's Centennial Farm every year. The Youth Expo draws over 25,000 children during a weekend each April. In addition the Orange County Market Place, representing over 1200 vendors, occupies a significant portion of the OCFEC parking lot nearly every weekend. In total over 4 million people attend events, the weekly Market Place and other activities in addition to the annual Fair. Any disruption to the parking area and/or access points to the OCFEC could cause significant impacts to any of these events. g

Although a general phasing schedule is provided in Chapter 3.0 Project Description; however, it does not include anticipated months of construction.

a. Is construction along Fair Drive anticipated during the months of June, July, or August? If so, please provide analysis of potential impacts to summer Fair operations including those impacts related to traffic and circulation, noise, and air quality. h

b. Will access to the OCFEC via the main entrance on Fair Drive or the Vanguard Gate be restricted? For how long? i

c. Mitigation Measure CON-31 stipulates that access to residential and commercial properties must be maintained during construction. As a Public Institutional use, access to the OCFEC should also be maintained. j

d. If construction along Fair Drive is anticipated during the months of June, July, or August, please assess the proposed project's impacts on Fair vendors and the revenue stream that will result from construction and access limitations. An abrupt drop in revenue could have a physical impact on the Fair's daily operations, maintenance, and implementation of the Master Plan program. k

e. How will installation of a pipeline in or adjacent to Fair Drive impact non-Fair operations on the OCFEC? Will construction take place on weekends when the Orange County Marketplace is in operation? l

f. How long is construction expected to last along Fair Drive between Harbor Boulevard and State Route 55? m

If you have any questions regarding this letter or if you need additional information, please contact me at (714) 708-3247.

Sincerely,
ORANGE COUNTY FAIR &
EXPOSITION CENTER

Becky Bailey-Findley
CEO/General Manager

Cc: Jim Barich, 32nd DAA President

Response No. 13

Orange County Fair & Exposition Center
Becky Bailey-Findley, CEO/General Manager

13a. This paragraph provides an introduction to the comment letter and does not require a response.

13b. The California State Clearinghouse is the agency responsible for ensuring that applicable State agencies receive notice for relevant environmental documents. However, the Orange County Fair & Exposition Center (OCFEC) has been added to the project's distribution list.

13c. Under this alignment alternative, pipeline construction would occur under the sidewalk and fence area between the OCFEC property and Fair Drive.

13d. Under this option, parking facilities may need to be used for construction, but only a maximum of 30 feet at the southern edge of the parking pavement.

13e. "Off pavement" construction refers to the construction of the pipeline adjacent to Fair Drive, which would not affect Fair Drive directly.

13f. Comment noted. No response is necessary.

13g. Comment noted. No response is necessary.

13h. The exact timing of construction at this reach is not known at this time. Detailed construction schedules are customarily developed during the detailed design phase of the project. However, construction could be scheduled to prohibit construction during this period if so directed by the City.

13i. It is estimated that pipeline construction will proceed at a rate of about 150 linear feet per day. As a result, open trenching in this area will most likely be limited to only two or three days. However, total restoration of the gate area may require approximately two weeks of total construction (median replacement, curb replacement, etc.).

13j. Comment noted. Access to the OCFEC will be maintained during construction.

13k. The construction specification would be developed with strict requirements to limit the impact to fairgrounds operation. Construction would occur during weekdays only and would not significantly impact the Fairground's weekend activities. As stated in Response 13h, construction could be scheduled to prohibit disruption during the months of June, July, or August if directed by the City. Also refer to Response 13j, above.

13l. Refer to Response 13k, above.

13m. The reach of pipeline between Harbor and the 55 Freeway would require a maximum of five months of construction time.

13n. This text provides a conclusion to the comment letter and does not require a response.

COMMENT 14

ORANGE COUNTY WATER DISTRICT
Orange County's Groundwater Authority

May 27, 2005

Mr. Ricky Ramos
City of Huntington Beach Planning Department
2000 Main Street
Huntington Beach, CA 92648

Subject: Draft Recirculated Environmental Impact Report No. 00-02 for the Seawater Desalination Project at Huntington Beach

Dear Mr. Ramos:

The Orange County Water District (OCWD) has received the draft Recirculated Environmental Impact Report (EIR) for the Seawater Desalination Project at Huntington Beach dated April 5, 2005 (State Clearinghouse No. 2001051092). OCWD appreciates the opportunity to review the draft EIR and supports creating new water supplies that are consistent with the area's water supply plans and policies. **a**

OCWD's comments on the draft EIR are:

1. The Environmental Summary, Section 1.2, under 'Long-Term Water Quality Impacts' and 'Product Water Quality' should address the potential water quality impacts of high chloride and sodium concentrations on irrigation users. **b**
2. Sodium, chloride, and boron concentrations in the proposed project's product water may exceed the levels in existing water supplies, potentially causing negative impacts to water users and recycled water users. Table 3-1 should list sodium, chloride, and boron concentrations. Section 5-11 should also have a more detailed evaluation of sodium, chloride, and boron issues for recycled water users. The evaluation of water quality issues should include an assessment of potential impacts on irrigation uses. Other sections of the EIR should be revised accordingly based on this evaluation. **c**
3. OCWD would need to see additional details before it could agree with the EIR's statement in Section 3.4, page 3-37, "The project would provide a new source of supply, and thus allow operational flexibility in managing the amount of groundwater pumped from underground aquifers. This would assist in protecting the Orange County Groundwater Basin from seawater intrusion and/or replace groundwater supplies lost to overdraft concerns." This statement is not **d**

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supported in the draft EIR and there is no analysis or description in the draft EIR to explain how the hypothesized benefit would be achieved. d

4. In referring to Phase 1 of the Groundwater Replenishment (GWR) System, the draft EIR states "The 72,000 acre-feet would essentially offset the 60,000 acre-feet of imported water purchased from MWD each year by OCWD, and, when added to the normal year recharge of 290,000 acre-feet, could allow for a slight increase in available groundwater supply." This statement is incorrect. OCWD intends to continue to buy as much replenishment water as possible from MWD after the Phase 1 GWR System is operational in 2007. The Phase 1 GWR System supply of 72,000 acre-feet per year is intended to increase basin pumping, not offset water purchased from MWD each year by OCWD. e

5. The quotations from the Grand Jury report on pages 3-44 and 3-45 of the draft EIR are not provided sufficient context to explain to the reader the fact that with a seawater intrusion barrier, a 'coastal pumping depression' can exist without causing seawater intrusion. When sufficient water is injected into the barrier, the barrier prevents seawater intrusion even when a coastal pumping depression exists. f

6. In the discussion of alternatives to the proposed project, the draft EIR states in Section 7.1, page 7-5 "Therefore, the ability of the groundwater basin to increase output or increase inflows of recycled/reclaimed water is limited." The draft EIR has not considered the opportunities that are available through Mid-Basin Injection with GWR System water, future phases of the GWR System, future increases in Santa Ana River flow due to increased development upstream of Prado Dam, and other opportunities to increase the groundwater basin's yield. The EIR should acknowledge on-going OCWD planning efforts for future GWR phases and injection of GWR water through wells located in the middle portion of the basin (this option, referred to as "Mid-Basin Injection" is described in the Grand Jury report). OCWD is preparing a Long-Term Facilities Plan to identify potential projects to cost-effectively increase the groundwater basin's yield. Mid-Basin Injection with GWR System product water and other projects that would allow increased basin yield are being evaluated in the Long-Term Facilities Plan. The EIR should present a more balanced discussion of the alternatives to the proposed project. g

If you would like to discuss these comments, please contact me at 714-378-3200. h

Sincerely,

Virginia Grebbien, P.E.
General Manager

Response No. 14

Orange County Water District
Virginia Grebbien, P.E., General Manager

14a. This text provides an introduction to the comment letter and does not require a response.

14b. Refer to Response 11g, above.

14c. The proposed project's product water quality meets all applicable regulations. The purpose of this project is to produce drinking water that is in compliance with all current regulations, not water that has exactly the same levels of boron, sodium and chloride as the existing water sources. The differences between the water quality of the existing water sources and the desalinated water in terms of sodium, chloride and boron are not expected to have measurable environmental effects associated with the use of this water for irrigation. For specifics associated with the sodium and chloride levels refer to Response 14b, above. For specifics associated with the boron levels, refer to Response 15ai, below.

Table 3-1, page 3-32 of the DREIR shows only key desalinated water quality parameters. The water quality of the desalinated water in terms of boron, sodium and chloride are presented in Chapter 5.11, which specifically addresses product water quality issues.

14d. This comment asks for additional information to support the statement labeled as "D" at the top of page 3-37 of the DREIR. The additional information in support of that statement is included at pages 3-43 through 3-45 of the DREIR.

14e. This comment has been addressed in Section 3.0, *ERRATA*, of the Responses to Comments.

14f. Comment noted. No response is necessary.

14g. Comment noted. It was not feasible for the DREIR to include all of the on-going planning efforts that are being evaluated for inclusion in OCWD's upcoming Long-Term Facilities Plan.

14h. This paragraph provides a conclusion to the comment letter and does not require a response.